REMARKS

Claims 1-10, 12, 15, 18, 20-23, 25, 26, 28, 29, 32-48, and 51-57 are pending. By this amendment claims 48, 51, 52 and 54 are amended. Claims 29 and 32-39 have been noted as allowed.

I. Claim Rejections 35 USC § 112

Claims 48, 51, 52, and 54 have been amended to clarify the subject matter that Applicant regards as the invention. It should be noted that the amendments were are non-substantive amendments provided only to clarify claim language; the amendments are not provided to present limitations to overcome any prior art.

II. Claim Rejections 35 USC § 103

Claims 1-10, 23, 26, 28, 48, 51, and 54-57 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 5,754,451 to Williams in view of Rockwell Software, *"Getting Results with RSRules"* (Rockwell). Claims 12, 15, 18, 20, and 21 stand rejected under 35 USC § 103(a) as being unpatentable over Williams in view of Rockwell and further in view of U.S. Patent No. 5,870,693 to Seng et al. Claim 22 stands rejected under 35 USC § 103(a) as being unpatentable over Williams in view of Rockwell and Seng and further in view of U.S. Patent No. 5,949,676 to Elsley. Claim 25 stands rejected under 35 USC § 103(a) as being unpatentable over Williams in view of Rockwell and further in view of U.S. Patent No. 5,949,676 to Elsley. Claims 40-47 are rejected under 35 USC §103(a) as being unpatentable over Williams in view of Rockwell and further in view of U.S. Patent No. 5,586,156 to Gaubatz.

Claims 52 and 53 are rejected under 35 USC § 103(a) as being unpatentable over Williams in view of Rockwell and further in view of U.S. Patent No. 5,319,353 to Ohnishi et al.

Each of the claims noted above has as their basis for rejection, at least in part, the combining of the teachings of Rockwell with the invention disclosed in Williams. As such, Applicant will address the Rockwell/Williams combination only. Applicant wishes to make clear that omission of discussion with respect to the other cited references neither means an agreement or disagreement with the Office Action's position on these cited references.

Thus, with respect to Rockwell/Williams, the Office Action notes that Williams does not disclose applying a diagnostic method to a plurality of virtual machines wherein at least one of the digital channels has been designated to be ignored; this feature is recited in all of the rejected independent claims. The Office Action turns to the Rockwell reference to provide a teaching of grouping subsets of digital channels and designating individual channels to be visible or not visible (i.e., ignored/excluded) in the overall analysis. The Office Action further indicates that it would have been obvious to modify the invention of Williams to include subsets of channels wherein at least one of the digital channels has been designated to be ignored so as to improve the analysis provided by Williams.

Applicant respectfully traverses this rejection. In order to combine two or more references to obviate a claimed invention there must be some suggestion, teaching, or motivation provided within the prior art references to do so. However the previous statement is qualified in that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Further,

if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. <u>In re Ratti</u>, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Applicant submits that combining the teachings of Rockwell with Williams would change the principle of operation of Williams. Specifically, combining the teaching of Rockwell to designate channels as visible or not visible to enable specialized analysis of channels specific to a particular operation or machine, would nullify the use of the potential fault library used by Williams. See Fig. 5 of Williams and its accompanying description at Col. 5, Lines 26-33, which states:

> Fig. 5 is a flow chart of an embodiment of a method of performing a fault diagnosis using the preventative maintenance device 10. As indicated by block 90, a step of storing within the preventative maintenance device 10, a library of input/output states for potential faults is performed. As the manufacturing equipment 12 operates, the preventative maintenance device stores, to its library, the states of faults encountered as indicated by block 92.

The potential fault library of Williams is further described at Col. 5, Lines 49-52, which states:

> The initial library of input/output states for potential faults can be determined in an off-line study of the manufacturing equipment and software which runs the programmable logic controller.

As can be seen, Williams utilizes a pre-established fault library to perform its fault analysis. In other words, within Williams, the decision on whether or not to analyze (include or ignore) a digital channel is not made by designating a channel to be ignored but rather is made by which potential faults are placed in the library, e.g., if it is desired to analyze a specific digital

17

channel then a fault related to that digital channel is pre-placed within the library, however, if it is desired to ignore a specific digital channel then no faults relating to that digital channel are placed in the library.
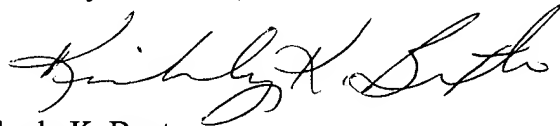
If Williams were to use the teaching of Rockwell to designate a specific digital channel as included or ignored there would be no need for the potential fault library of Williams and without the potential fault library Williams would have no method or process for determining when a fault occurred. As such, the result of combining the teachings of Rockwell with Williams would be to change the principle of operation of Williams. The combining of the teachings of Rockwell with Williams would also render Williams unsatisfactory for its intended purpose. It follows then that the teaching of Rockwell, as applied to Williams, is not sufficient to render the claims *prima facie* obvious. Therefore, Applicant respectfully requests that the rejection of all claims rejected under 35 USC § 103(a) be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that this application is in condition for allowance.

Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would

be useful to advance prosecution.

Respectfully submitted,

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